

A New Species of the Genus *Nesticus* (Araneae: Nesticidae) Found in a Tuff Cave from Oita Prefecture in Kyushu, Japan

Teruo Irie¹⁾

入江照雄¹⁾:九州産ホラヒメグモ属 (クモ目:ホラヒメグモ科) の1新種

Abstract A new species of the genus *Nesticus* belonging to the family Nesticidae is described from a tuff cave in Oita Prefecture, Japan, under the name, *Nesticus kunisakiensis* sp. nov. This species belongs to a long-legged and eastern Japanese type nesticid.

Forty-three species and 10 subspecies of the Japanese long-legged type spiders of *Nesticus* have been found, among which 7 species have been recorded from Kyushu: *N. higoensis* Yaginuma, 1979, *N. bungonus* Yaginuma, 1979, *N. furenensis* Yaginuma, 1979, *N. iriei*, Yaginuma, 1979, *N. takachiho* Yaginuma, 1979, *N. karyuensis* Yaginuma, 1980, *N. yaginumai* Irie, 1987. The new species is readily separated from the above 7 species by the structure of male palp organ and epigynum.

All the type specimens are deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

The abbreviations used in the paper are as follows: ALE, anterior lateral eye; AME, anterior median eye; Cp, length of clypeus; OA, ocular area; Cs, chitin scape of female epigynum; Pcy, paracymbium of male palp; PLE, posterior lateral eye; PME, posterior median eye.

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Nesticus kunisakiensis sp. nov.

(Figs. 1–5)

Measurements of holotype and allotype (♂/♀; in mm). Body length 5.63/4.46. Carapace length 2.23/1.73, width 2.20/1.60. Abdomen length 3.40/2.73, width 1.90/1.76. Length of legs as shown in Table 1. Eye sizes: AME 0.07/0.10, ALE 0.15/0.13, PME 0.15/0.13, PLE 0.15/0.13. Distances between eyes: AME–AME 0.05/0.03, PME–PME 0.13/0.13, ALE–ALE 0.43/0.30, PLE–PLE 0.50/0.46. OA length 0.33/0.26, width 0.76/0.63. Cp 0.33/0.30.

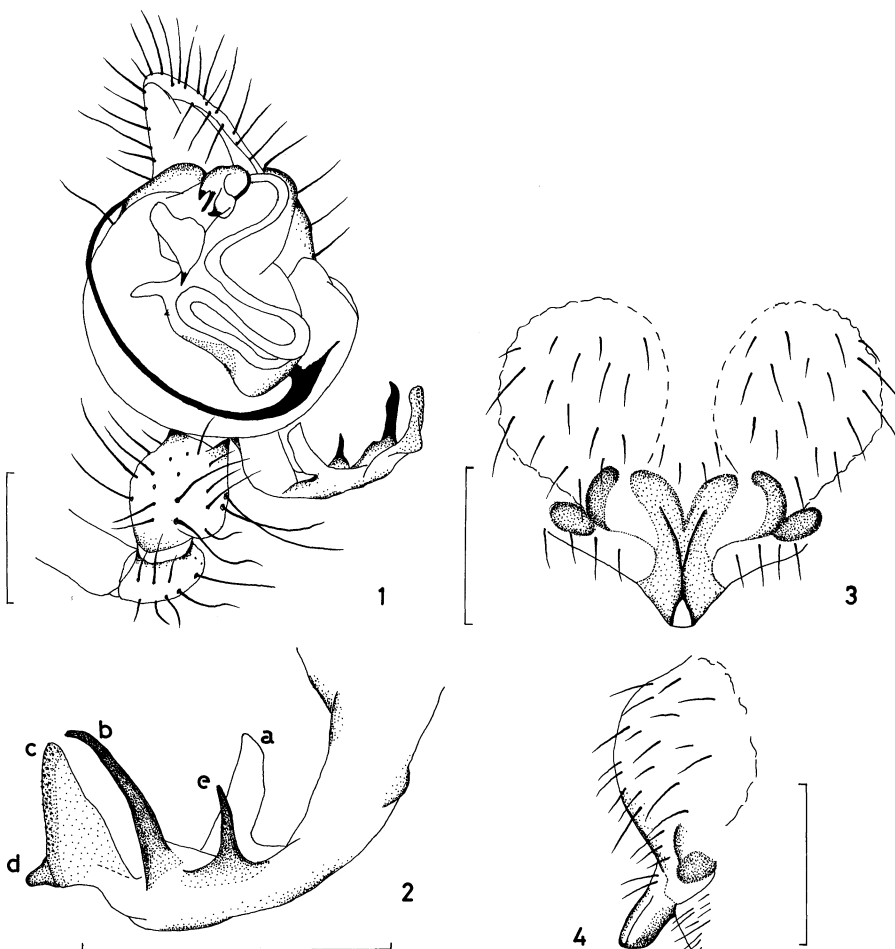
Male (holotype): Carapace pale yellow, length nearly equal to width, without flecks. OA yellow, anterior median eyes the smallest and black, the others white. Row of

1) 19–11, Ikeda 2 Chome, Kumamoto-shi, Kumamoto Prefecture, 860–0082 Japan

〒860–0082 熊本市池田2丁目19–11

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anterior eyes nearly straight. Chelicera reddish yellow, promargin of the fang furrow with 3 teeth, retromargin with a row of denticles. Sternum pale gray, almost as long as wide. Maxillae yellow, longer than wide, with scopula at opical end. Labium yellow, wider than long. Legs long, yellow, without ring flecks. Leg formula 1, 2=4, 3.



Figs. 1-4. *Nesticus kunisakiensis* sp. nov. — 1, Male left palp; exo-lateral view; 2, paracymbium of left male palp, endo-lateral view; 3, epigynum, ventral view. 4, same, lateral view. (Scales: 0.5 mm.)

Table 1. Measurements of legs of *Nesticus kunisakiensis* sp. nov. (♂/♀; in mm).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	5.37/4.12	1.03/0.90	6.00/4.25	5.50/3.75	1.83/1.43	19.73/14.45
II	4.50/3.12	0.90/0.73	4.75/3.50	4.25/2.87	1.56/1.20	15.96/11.42
III	3.50/2.46	0.83/0.63	2.80/1.80	3.10/1.93	1.03/0.96	11.26/7.78
IV	5.00/3.50	1.00/0.76	4.25/3.00	4.12/2.83	1.40/1.10	15.77/11.19

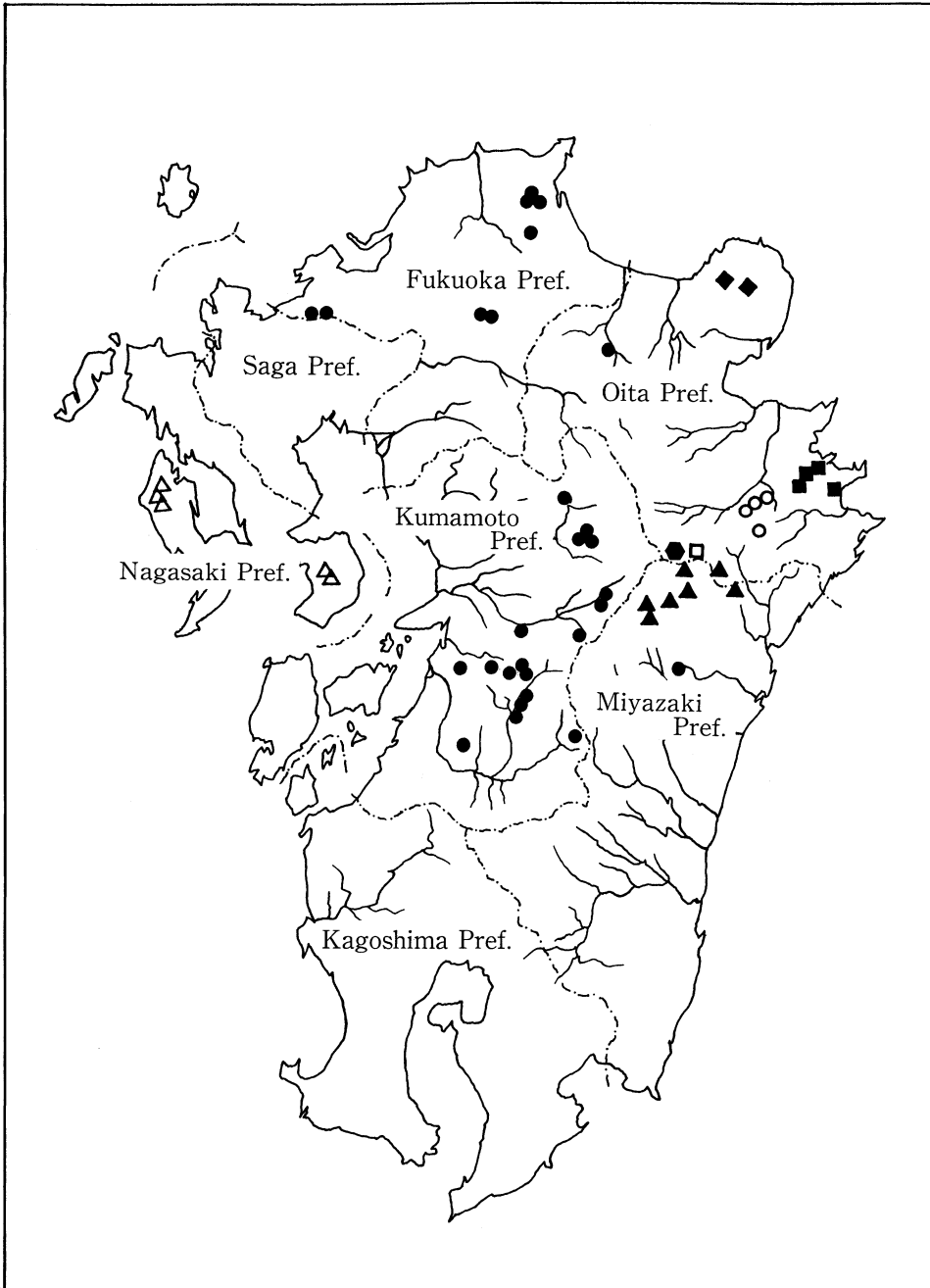


Fig. 5. Distribution of long-legged nesticid spiders in Kyushu. ●: *Nesticus higoensis* Yaginuma, ▲: *N. takachiho* Y., ■: *N. karyuensis* Y., ○: *N. furenensis* Y., □: *N. iriei* Y., ●: *N. bungonus* Y., △: *N. yaginumai* Irie, ◆: *N. kunisakiensis* sp. nov.

Abdomen whitish gray, with seven paired gray flecks.

Male palp: Male palpal organ as in the genus *Nesticus*, the structure as shown in Figs. 1-2. Pcy provided with five projections Pa, Pb, Pc, Pd and Pe. Pcy is similar to *N. furenensis*, but Pd and Pe present. Pa broad and flat, slightly curved. Pb long and thin, slightly curved outward like a hook. Pc broad and flat, with serration at the outside. Pd broad and short. Pe short and thin. Embolus black, very long and curved.

Female (allotype): Legs shorter than those of the male, with gray flecks. Length of legs as shown in Table 1. Other characters and coloration as same as in the male holotype. Epigynum as shown in Figs. 3-4. Cs very short, similar to that of *N. yaginuma*.

Type series. Holotype: ♂, Ohiwaya-no-kaza-ana Cave, Ohiwaya, Matama-chō, Kunisaki Peninsula, Oita Prefecture, Japan, 16-V-1999, T. Irie leg. (NSMT-Ar3851); allotype: ♀, Ohiwaya-no-kaza-ana Cave, Ohiwaya, Matama-chō, Kunisaki Peninsula, Oita Prefecture, 16-V-1999, T. Irie leg. (NSMT-Ar3852).

Other specimens examined. 4 ♀ 3 ♂ juv., 11-X-1980 (1 ♂ y, after breeding, it became mature on the 25-II-1981), Y. Nishikawa leg., 1 ♀ 1 ♂ 2 juv., 16-V-1999, T. Irie leg., same locality as for the holotype. 1 ♀, 17-VIII-1989, Mt. Futagoyama, Kunisaki-chō, Kunisaki Peninsula, Y. Ihara leg.

Variation (in mm). Body length. ♂ 4.56, ♀ 3.52-3.79.

Distribution. The Kunisaki Peninsula, Oita Prefecture in Kyushu, Japan.

Remarks. This new species is similar to *N. furenensis* and *N. yaginuma* in the shape of female epigynum, but is quite different from them in the shape of the male palp. This species belongs to long-legged and eastern Japanese type nesticid.

Etymology. The specific name is derived from the type locality.

摘 要

大分県国東半島に産するホラヒメグモ科の1新種を *Nesticus kunisakiensis* sp. nov. クニサキホラヒメグモ (新称) と命名して記載した。

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